

NICARAGUA SHIP CANAL

SAILING OF AN ENGINEER CORPS T

The Steamer Honda Will Carry the Party—Increased Force for the Field The Water Way Will be 170 Miles Length.

of forty engineers will sail from New York for Greytown, Nicaragua, for the purpose of making a preliminary location of the projected ship canal across the Isthmus. They will leave in the Honda, a steamship chartered for the expedition, and will start at Jamaica and the Fortune Islands to take on board at each place about forty laborers. Additional laborers will be in waiting at Greytown, Nicaragua, and the entire force to go into the field will constitute four officers and one hundred and ten laborers. This expedition is sent out by the Nicaragua Canal Construction Company.

the president and Civil Engineer A. G. Mocal, U. S. N., chief engineer. The other officers are as follows: Treasurer, Horace Biechler; secretary, J. W. Miller; conse-

chief assistant engineer, Civil Engineer
E. Perry, U. S. N.; attorneys and couns
Daily, Hoyt, and Mason, of New York. T
board of directors comprises a number
capitalists prominent in financial circle
largely of New York, among whom is G
Z. F. Beale, of this city.

work will be begun at Greytown, whence engineers will move westward, soon following the San Juan river, which then forms the canal route to Lake Nicaragua, a land sea ninety miles long and at an elevation of 110 feet above sea level. At the western end of the lake the route leads to Brito, on the Pacific. From sea to sea the canal will be 170 miles long, of which 100 miles is lake and river navigation, leaving but forty miles of excavation. The le-

The personnel of the party has been completed, and appointments made by the company upon the nomination of Mr. Menoc. The engineers chosen for the important work comprise those experienced in the profession, and great care has been taken in making the selections. The entire crew will consist of separate parties, five is surveying, one hydrographic, and one dredging party. The personnel is as follows:

Chiefs of parties—J. Francis Le Baron, Jacksonville, Fla.; Domingo Garcia Carta, Mexico; Frank P. Davis, of this city; J. Pethard, St. Louis, Mo.; Lieut. J. W. McNeill, U. S. N.; Peter Kalb, Hoboken, N. J.

Second assistant engineers or levee
Ricardo Molina, Havana, Cuba; J. S. Fo
New York; H. C. Litchfield, Flori
Calixto Genteras, Philadelphia, Pa.;
Menocal, this city; E. W. Hunt, Wiscon
Rodmen: Emil Diebtsch, this cit
Eurique Cole, Managua, Nicaragua; P
Spicer, Winchester, Mass.; Wm. McCaw
and Perry Fuller, this city; Paul B. Co
and P. V. E. Van Wyck, Jr.
Surveyors: Louis Wm. Mohun, G.
Stratton, John M. Murphy, R. J. Wils
Henry W. Johnson, all of this city.
David M. Woodard, New York.

York, and Charles E. Kern, of this city, some time on the local staff of the NATIONAL REPUBLICAN.

A medical staff of several experienced doctors will accompany the expedition, every means to preserve the health of party will be taken.

The engineers of the party have extensive records in their profession, and have been engaged in works in various parts of

Dr. J. Edgar Smith, a graduate of the University of California at Carlsberg, Baden, Germany, has been engaged in various surveys and construction of railroads in Mexico, South America, and the United States. He was for some time employed on the Panama canal, and had to resign his position on account of the unhealthfulness of the climate. His last work was on the Costa Rica

Frank P. Davis, of this city, is a graduate of the University of Michigan, and was employed in the War Department as a draughtsman. He has been in charge of the location of railroads in Michigan, and for some time was resident engineer of the Denver and Rio Grande railroad.

Domínguez García Cartaya is a distinguished

J. Francis Le Baron has extensive experience in engineering enterprises in Florida, having surveyed and estimated a number of canals in that state and other engineering projects. He is a member of the American Society of Civil Engineers, and secretary of the Southern Society

H. C. Litchfield, of Tallahassee, Fla., an Englishman, and served as a midshipman in the British royal navy. He left service, and after graduating as an en-

F. T. Bernhard, late assistant engineer of the Standard Gas Light Company, New York, is a graduate of the University of Africa, and later joined the Cape Colony government railway service.

J. W. Peithard is an Englishman, formerly an officer of the English navy, who has been connected with extensive ex-

The concession granted by Nicaragua the company, and which was ratified that government last April, is as liberal could be desired. It gives to the company the exclusive privilege of building and operating the canal and a railroad for nine

their control for a like period. The seaports at the entrances of the canal are to be free to the merchant vessels of all nations. Land donations of lands in alternate sections along the route of the canal, amounting to

The final surveys now soon to be commenced are, under the terms of the concession, to be commenced within one year after its ratification by the Nicaraguan congress, and a year and a half is allowed to complete them, and \$2,000,000 must

Admiral Ammen, who has long been known as a champion of the Nicaragua canal project, believes this route is perfectly practicable, free from complicated and doubtful engineering problems and that

He says that as now located the navigational route from sea to sea would be 170 miles, of which forty miles are to be excavated.

by the further substitution of estuary navigation in the eastern division. Not more than fourteen miles can be excavated by dredgers, and the remainder will almost wholly be effected by machine labor. The last partial survey made two years ago

river, near the Caribbean sea coast, actually adding, he says, 50 per cent. to the commercial value of the route. The future development of estuary navigation doubtless shorten the mileage of ex-

The estimated cost of the canal is \$35,000, and it may be completed in a year.

expended in perfecting the location making the necessary preparatory active operations.